AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended)

A computer-implemented manufacturing quality information database usable for tracking quality information relating to a manufacturing process, comprising:

a symptom data entity storing symptoms, which are observable states indicative of a defect, of manufacturing process defects;

a defect data entity storing defects of the manufacturing process;

a defect category data entity for storing defect categories of the manufacturing process;

said defect data entity being associated with said defect category data entity;

an action data entity storing repair actions for remedying related defects;

said defect data entity being associated with said symptom data entity; and

said action data entity being associated with said defect data entity,

wherein said manufacturing quality information database tracks a plurality of manufacturing processes,

the manufacturing quality information database further comprising:

a process data entity storing identities of the manufacturing processes;

a symptom category data entity storing symptom categories of manufacturing defects; and

a process/symptom/defect frequency data entity observing a relationship frequency between the manufacturing process identities, the symptom categories and the defect categories.

Claim 2. (Previously Presented)

The computer-implemented manufacturing quality information database according to claim 1,

wherein said manufacturing quality information database tracks a plurality of manufacturing processes,

the manufacturing quality information database further comprising:

a process data entity storing identities of the manufacturing processes,

said symptom data entity, said defect data entity, and said action data entity being associated with said process data entity.

Claim 3. (Previously Presented)

The computer-implemented manufacturing quality information database according to claim 1,

wherein said manufacturing quality information database tracks a plurality of manufactured items,

the manufacturing quality information database further comprising:

an item data entity storing identities of manufactured items;

said symptom data entity, said defect data entity, and said action data entity being associated with said item data entity.

Claim 4. (Currently Amended)

The computer-implemented manufacturing quality information database according to claim 1, ~~further comprising:~~

~~a symptom category data entity for storing symptom categories of manufacturing defects;~~

said symptom data entity being associated with said symptom category data entity.

Claim 5. (Currently Amended)

The computer-implemented manufacturing quality information database according to claim 4,

~~wherein said manufacturing quality information database tracks a plurality of manufacturing processes,~~

the manufacturing quality information database further comprising:

~~a process data entity storing identities of the manufacturing processes; and~~

a process/symptom frequency data entity observing a relationship frequency between the symptom categories and the manufacturing process identities.

Claim 6. (Cancelled)

Claim 7. (Previously Presented)

The computer-implemented manufacturing quality information database according to claim 1 ~~6~~, further comprising:

a symptom/defect frequency data entity observing a relationship frequency between the symptom categories and the defect categories.

Claim 8. (Previously Presented)

The computer-implemented manufacturing quality information database according to claim 1, further comprising:

an action category data entity storing action categories;

said action data entity being associated with said action category data entity.

Claim 9. (Previously Presented)

The computer-implemented manufacturing quality information database according to claim 8, further comprising:

a defect/action frequency data entity observing a relationship frequency between the defect categories and the action categories.

Claim 10. (Cancelled)

Claim 11. (Currently Amended)

~~The computer-implemented manufacturing quality information database according to claim 1~~A computer-implemented manufacturing quality information database usable for tracking quality information relating to a manufacturing process, comprising:

a symptom data entity storing symptoms, which are observable states indicative of a defect, of manufacturing process defects;

a defect data entity storing defects of the manufacturing process;

a defect category data entity for storing defect categories of the manufacturing process;

said defect data entity being associated with said defect category data entity;

an action data entity storing repair actions for remedying related defects;~~,~~

said defect data entity being associated with said symptom data entity; and

said action data entity being associated with said defect data entity,

wherein said manufacturing quality information database tracks a plurality of manufacturing processes,

the manufacturing quality information database further comprising:

a process data entity storing identities of the manufacturing processes;

a symptom category data entity storing symptom categories of manufacturing defects;

an action category data entity storing action categories; and

a process/symptom/defect/action frequency data entity observing a relationship frequency between the manufacturing process identities, the symptom categories, the defect categories, and the action categories.

Claim 12. (Currently Amended)

The computer-implemented manufacturing quality information database according to claim 1, ~~further comprising:~~

~~a symptom category data entity storing symptom categories of manufacturing defects;~~

said symptom data entity being associated with said symptom category data entity; and

said defect category entity being associated with said symptom category data entity.

Claim 13. (Previously Presented)

The computer-implemented manufacturing quality information database according to claim 1, further comprising:

an action category data entity storing action categories;

said action data entity being associated with said action category data entity; and

said action category data entity being associated with said defect category data entity.

Claim 14. (Currently Amended)

A computer-implemented method of using a manufacturing quality information database for tracking quality information relating to a manufacturing process, comprising:

storing symptoms, which are observable states indicative of a defect, of manufacturing process defects in a symptom data entity;

storing defects of the manufacturing process in a defect data entity;

storing defect categories of the manufacturing process in a defect category data entity;

associating the defect data entity being with the defect category data entity;

storing repair actions for remedying related defects in an action data entity;

associating the defect data entity with the symptom data entity; ~~and~~

associating the action data entity with the defect data entity;

tracking a plurality of manufacturing processes with the manufacturing quality information database,

storing identities of the manufacturing processes in a process data entity,

storing symptom categories of manufacturing defects in a symptom category data entity;

storing action categories in an action category data entity;

observing a relationship frequency between the manufacturing process identities, the symptom categories, the defect categories, and the action categories; and

storing the relationship frequency in a process/symptom/defect/action frequency data entity.

Claim 15. (Currently Amended)

The computer-implemented method of using a manufacturing quality information database according to claim 14, further comprising:

~~tracking a plurality of manufacturing processes with the manufacturing quality information database;~~

~~storing identities of the manufacturing processes in a process data entity; and~~

associating the symptom data entity, the defect data entity, and the action data entity with the process data entity.

Claim 16. (Currently Amended)

The computer-implemented method of using a manufacturing quality information database according to claim 14, further comprising:

~~tracking a plurality of manufactured items with the manufacturing quality information database;~~

~~storing identities of manufactured items in an item data entity; and~~

associating the symptom data entity, the defect data entity, and the action data entity with the item data entity.

Claim 17. (Currently Amended)

The computer-implemented method of using a manufacturing quality information database according to claim 14, further comprising:

~~storing symptom categories of manufacturing defects in a symptom category data entity; and~~

associating the symptom data entity with the symptom category data entity.

Claim 18. (Currently Amended)

The computer-implemented method of using a manufacturing quality information database according to claim 17,

~~tracking a plurality of manufacturing processes with the manufacturing quality information database;~~

~~storing identities of the manufacturing processes in a process data entity;~~

observing a relationship frequency between the symptom categories and the manufacturing process; and

storing the relationship frequency in a process/symptom frequency data entity.

Claim 19. (Cancelled)

Claim 20. (Previously Presented)

The computer-implemented method of using a manufacturing quality information database according to claim 14, further comprising:

observing a relationship frequency between the symptom categories and the defect categories; and

storing the relationship frequency in a symptom/defect frequency data entity.

Claim 21. (Previously Presented)

The computer-implemented method of using manufacturing quality information database according to claim 14, further comprising:

storing action categories in an action category data entity; and

associating the action data entity with the action category data entity.

Claim 22. (Previously Presented)

The computer-implemented method of using a manufacturing quality information database according to claim 21, further comprising:

observing a relationship frequency between the defect categories and the action categories; and

storing the relationship frequency in a defect/action frequency data entity.

Claim 23. (Currently Amended)

The computer-implemented method of using manufacturing quality information database according to claim 14, further comprising:

~~tracking a plurality of manufacturing processes with the manufacturing quality information database;~~

~~storing identities of the manufacturing processes in a process data entity;~~

~~storing symptom categories of manufacturing defects in a symptom category data entity;~~

observing a relationship frequency between the manufacturing process identities, the symptom categories and the defect categories; and

storing the relationship frequency in a process/symptom/defect frequency data entity.

Claim 24. (Cancelled)

Claim 25. (Currently Amended)

The computer-implemented method of using a manufacturing quality information database according to claim 14, further comprising:

~~storing symptom categories of manufacturing defects in a symptom category data entity;~~

associating the symptom data entity with the symptom category data entity; and

associating the defect category entity with the symptom category data entity.

Claim 26. (Previously Presented)

The computer-implemented method of using a manufacturing quality information database according to claim 14, further comprising:

storing action categories in an action category data entity;

associating the action data entity with the action category data entity; and

associating the action category data entity with the defect category data entity.